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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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09/755,857

01/05/2001

Chien-Meen Hwang

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10/18/2004

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EXAMINER

PATHAK, SUDHANSHU C

ART UNIT

PAPER NUMBER

2634

DATE MAILED: 10/18/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Advisory Action

Application No.

09/755,857

Applicant(s)

HWANG ET AL.

Examiner

Sudhanshu C. Pathak

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2634

--The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

THE REPLY FILED August 18th, 2004 FAILS TO PLACE THIS APPLICATION IN CONDITION FOR ALLOWANCE. Therefore, further action by the applicant is required to avoid abandonment of this application. A proper reply to a final rejection under 37 CFR 1.113 may only be either: (1) a timely filed amendment which places the application in condition for allowance; (2) a timely filed Notice of Appeal (with appeal fee); or (3) a timely filed Request for Continued Examination (RCE) in compliance with 37 CFR 1.114.

PERIOD FOR REPLY [check either a) or b)]

- a) ☐ The period for reply expires _____ months from the mailing date of the final rejection.
- b) ☒ The period for reply expires on: (1) the mailing date of this Advisory Action, or (2) the date set forth in the final rejection, whichever is later. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of the final rejection. ONLY CHECK THIS BOX WHEN THE FIRST REPLY WAS FILED WITHIN TWO MONTHS OF THE FINAL REJECTION. See MPEP 706.07(f).

Extensions of time may be obtained under 37 CFR 1.136(a). The date on which the petition under 37 CFR 1.136(a) and the appropriate extension fee have been filed is the date for purposes of determining the period of extension and the corresponding amount of the fee. The appropriate extension fee under 37 CFR 1.17(a) is calculated from: (1) the expiration date of the shortened statutory period for reply originally set in the final Office action; or (2) as set forth in (b) above, if checked. Any reply received by the Office later than three months after the mailing date of the final rejection, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

1. ☐ A Notice of Appeal was filed on _____. Appellant's Brief must be filed within the period set forth in 37 CFR 1.192(a), or any extension thereof (37 CFR 1.191(d)), to avoid dismissal of the appeal.
2. ☐ The proposed amendment(s) will not be entered because:
- (a) ☐ they raise new issues that would require further consideration and/or search (see NOTE below);
 - (b) ☐ they raise the issue of new matter (see Note below);
 - (c) ☐ they are not deemed to place the application in better form for appeal by materially reducing or simplifying the issues for appeal; and/or
 - (d) ☐ they present additional claims without canceling a corresponding number of finally rejected claims.

NOTE: _____

3. ☐ Applicant's reply has overcome the following rejection(s): _____.
4. ☐ Newly proposed or amended claim(s) _____ would be allowable if submitted in a separate, timely filed amendment canceling the non-allowable claim(s).
5. ☒ The a) ☐ affidavit, b) ☐ exhibit, or c) ☒ request for reconsideration has been considered but does NOT place the application in condition for allowance because: See Attached "Response to Argument".
6. ☐ The affidavit or exhibit will NOT be considered because it is not directed SOLELY to issues which were newly raised by the Examiner in the final rejection.
7. ☒ For purposes of Appeal, the proposed amendment(s) a) ☐ will not be entered or b) ☒ will be entered and an explanation of how the new or amended claims would be rejected is provided below or appended.

The status of the claim(s) is (or will be) as follows:

Claim(s) allowed: _____

Claim(s) objected to: _____

Claim(s) rejected: 4-7 & 15-18.

Claim(s) withdrawn from consideration: _____

8. ☐ The drawing correction filed on _____ is a) ☐ approved or b) ☐ disapproved by the Examiner.
9. ☐ Note the attached Information Disclosure Statement(s) (PTO-1449) Paper No(s). _____
10. ☐ Other: _____

Response to Arguments

1. Applicant's arguments filed on August 18th, 2004 have been fully considered but they are not persuasive.
2. The independent Claims 4 & 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over AAPA in view of Lin (6,057,789) in view of Fertner (5,742,642) in further view of Tice (6,222,456).

The Applicant Admitted Prior Art (AAPA) discloses a network receiver for recovering a frame of data transmitted on a network medium (Specification, Page 1, lines 12-26), the receiver comprising a circuit utilizing a training sequence portion of the data frame for calculating the receiver parameters useful for recovering the transmitted data (Specification, Page 2, lines 5-22). The AAPA further discloses the network receiver wherein the receiver is an equalizer utilizing a complex finite impulse response filter to recover transmitted data and the receiver parameters are coefficients for the filter (Specification, Page 2, lines 5-22). However the AAPA does not disclose the receiver further comprising a buffer circuit storing the data at a first data rate and releasing the data at a second data rate, slower than the first data rate to effectively reduce the data rate input to the receiver circuit.

Lin discloses a buffer circuit storing the data at a first data rate and releasing the data at a second data rate (Abstract, lines 1-7 & Column 1, lines 14-18, 43-58 & Column 3, lines 25-40 & Column 5, lines 30-56 & Column 7, lines 5-14 & Fig. 2-7). Lin discloses varying the sample rate converter parameters to increase or decrease the data rate of the output data compared to the input data rate (Column 1, lines 43-

58 & Column 2, lines 12-38 & Column 5, lines 30-56 & Column 6, lines 10-27 & Column 7, lines 5-52 & Fig. 2-7). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention that implementing the sample rate converter as described in Lin in the receiver as described in AAPA reduces the complexity and cost of the digital receiver and can further be integrated on a larger system chip receiver. However, AAPA in view of Lin does not disclose an A/D converter (ADC) to sample the modulated carrier and generate a sequence of samples representing the modulated carrier.

Fertner discloses a digital receiver for use in a network communications system (Fig. 3-4). Fertner further discloses the receiver comprising an analog-to-digital converter (ADC) for sampling a modulated carrier and generating a sequence of sample values representing the modulated carrier (Fig. 4, element 48 & Column 6, lines 15-37). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention that the ADC as described in Fertner can be implemented in the digital receiver as described in AAPA in view of Lin so as to convert the data transmitted into the digital domain to process and recover the transmitted data with minimal errors caused in the transmission medium. However, AAPA in view of Lin in further view of Fertner does not disclose varying the read/write rate of the buffer depending on the training sequence of the frame or the data portion of the frame.

Tice discloses a detector with a variable sample rate, wherein the detector detects a predetermined profile from the incoming signal using pattern recognition

techniques and then varying the sample rate accordingly (Abstract, lines 1-15 & Column 4, lines 8-29). Tice also discloses programmable processor comprising pattern recognition instructions for detecting the presence of a predetermined profile (Abstract, lines 1-15). Tice also discloses a common control unit, which could be implemented as one, or more interconnected programmed processors and associated, presorted instructions, so as to be implemented in multiple applications (Column 3, lines 25-39). Tice further discloses the detection circuitry and the sampling rate determination circuitry to be coupled to the control circuitry so as to provide processing of the incoming signal (Column 4, lines 39-55). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention that Tice teaches that depending on a predetermined sequence of the incoming signal and varying the sampling rate in response to the detected pattern and can be implemented in the receiver as described in AAPA in view of Lin in further view of Fertner, so as to detect a predetermined profile (training sequence) from the incoming signal and instead of varying the sampling rate varying the read/write rate of the buffer as described in Lin. Furthermore, there is no criticality in increasing and decreasing the output sampling frequency of the sample rate converter depending on the type of data is a matter of design choice i.e. there is no criticality in either increasing or decreasing the sample rate, this is application dependent and within the application it may be critical to either increase or decrease the sample rate.

NOTE: The Tice reference in regards to the rejection teaches a detector for detecting a predetermined profile (training sequence) and varying the sampling rate

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can be implemented in the receiver as described in AAPA in view of Lin in further view of Fertner so as to detect the training sequence and vary the read/write sampling of the buffer as described in Lin.

Conclusion

3. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sudhanshu C. Pathak whose telephone number is (571)-272-3038. The examiner can normally be reached on M-F: 9am-6pm.

- If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stephen Chin can be reached on (571)-272-3056
- The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.
- Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Sudhanshu C. Pathak


AMANDA T. LE
PRIMARY EXAMINER